

REMARKS

The Office Action mailed October 16, 2009, has been received and its contents carefully noted. Claims 1, 4-23 and 25-34 were pending. Claims 1, 4-23 and 25-34 were rejected. Claims 6-23 were withdrawn from consideration. By this Response, claims 1, 25, 26 and 29 have been amended. The claims, as amended, reflect that the article or the fiber have a capacity for retaining water due, in part, to the promotion by the hydrophilic surface of water absorption. Support may be found in the specification, in particular the paragraph bridging pages 14 and 15 and the first three complete paragraphs on page 15 and Examples 1 and 2. No statutory new matter has been added. Therefore, reconsideration and entry of the claims, as amended, are respectfully requested.

Rejection under 35 U.S.C. 103(a)

Claims 1, 4, 5 and 25-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Soane (US 20030013369) in view of the Handbook of Fillers-A-Definitive User's Guide and Databook, "The Handbook".

It appears that the rejection was motivated in part due to the perception of the breadth of the claims. The claims have been amended to more clearly distinguish over the teachings of Soane et al. and the Handbook. The Handbook is principally relied upon to show the different forms of silica.

Soane et al. teach a polymeric encapsulator. The encapsulator is a bead or matrix which is a nano-particle having a polymeric shell which surrounds a releasable "payload". The polymeric coating allows the "encapsulator" to form a chemical bond with a fiber, yarn, textile, etc. The payload is released over time in a controlled fashion.

The invention relates to the addition of hydrophilic silica to a surface to impart to it a hydrophilic character. An existing surface is rendered more hydrophilic. No time release of an active ingredient is involved. The hydrophilic surface renders the fiber, textile or polymeric material (sponge) more water absorbent. See pages 14 and 15 of the specification and the

Examples. Various applications are mentioned.

The claims, as amended, more clearly tie in the presence of the hydrophilic surface present in the article, textile or fiber with increased water retention or absorption. The surface modified structure retains more water. See Examples.

The modification of Soane et al so that so that pyrogenic silica is selected as a "carrier" for the payload does not result in the invention as claimed. The selection of silica is as a carrier, a matrix for "holding" the payload. The silica is entrapped in a "coating". Even if one optimizes using routine trial and error experimentation, it is not seen what Soane et al. property si selected for optimization would arrive at the claimed parameters. The claimed parameters are associated with water retention. Soane et al. does appear concerned with water absorption.

It is respectfully submitted that the references, alone or in combination, do not establish a proper prima facie case of obviousness. The teachings appear incomplete.

Rejections under the Court Doctrine of Obviousness-Type Double Patenting

Claims 1, 5, 25-27 and 29-31 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 48 of U.S. Patent Application Serial No. 11/249,315. Applicants respectfully traverse.

Applicants reserve the right to obviate the rejection by filing a terminal disclaimer. It is believed that there is a clear line of demarcation. Applicants have amended the claims to clearly distinguish over the teaching provided by claim 48.

Claim 48 teaches a cover or textile as claimed in claim 19, wherein the particles comprise at least one material selected from the group consisting of silicates, doped or fumed silicates minerals, metal oxides, silicas, polymers and mixtures thereof. Claim 19 teaches a cover or textile having a self cleaning, anti-allergic surface having depressions and/or elevations of 20nm to 100 μ m prepared by a solvation process.

It is not seen without more why a surface which permits remove of an allergenic materials is equivalent to a surface which retains water. The members of the Markush group are not all equivalent to fumed silica in terms of hydrophilicity. There is no guidance pointed to that would have lead one to the selection of pyrogenic silica in the context of a moiety which causes a hydrophilic surface.

Optimization as to the removal of allergenic material is not seen as the same as equivalent to optimizing for water retention. Further, there does not seem to be an extension of a monopoly. The invention represented by claim 48 appear patentably distinct from that claimed herein.

Withdrawal of the rejection is respectfully requested.

Claims 1, 5, 25-27 and 29-31 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 3 and 7 of U.S. Patent Application Serial No. 10/506,604. Applicants respectfully traverse.

Applicants reserve the right to obviate the rejection by filing a terminal disclaimer. It is believed that there is a clear line of demarcation. Applicants have amended the claims to distinguish over the teaching provided by claims 1, 3 and 7.

Claim 1 is directed to an injection molding with at least one surface which has self cleaning properties where the securely anchored micro-particles form elevation having an aspect ration of from 0.3 to 0.9. Claim 3 further limits claim 1 by specifying the elevation as having an average height from 50 nm to 4 μ m and/or an average separation of from 50 nm to 4 μ m. Claim 7 further limits the composition of the microparticles to the materials specified in a Markush group where fumed silica is a member as are pulverulent polymers.

The claims as amended are not directed to injection molded materials. The present claims are directed to textiles, articles having a hydrophilic surface imparted by the presence of hydrophilic pyrogenic silica. The hydrophilic surface causes water retention.

There is no guidance which would lead one to the selection of pyrogenic silica over pulverulent polymers. Included in the Markush group are chemically dissimilar materials. There is no indication that optimizing a surface for self cleaning properties would be the same as optimizing a surface for water retention.

It is submitted that the claims as amended are patentably distinct from the invention represented by claims 1, 3 and 7 of the '604 application. There is no extension of a monopoly.

Withdrawal of the rejection is respectfully requested.

Claims 1, 5, 25-27 and 29-31 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 3 and 7 of U.S. Patent Application Serial No. 10/506,236. Applicants respectfully traverse.

Applicants reserve the right to obviate the rejection by filing a terminal disclaimer. Applicants believe that there is a clear line of demarcation between the claims. Applicants have amended the claims to more clearly distinguish over the teaching provided by claim 1, 3 and 7.

Claim 1 is directed to a self-cleaning device for storing and/or handling at least one liquid. The device is prepared by injection molding. At least one surface of the device comes into contact with a liquid to be stored. That surface is characterized as having micro-particles impressed therein which particles form elevations relative to the surface. The impressed microparticles are anchored in the surface "such that" 10 to 90% of the average diameter of the micro-particle are within the surface. The stored liquid when emptied from the device leaves no residue. Claim 3 further limits claim 1 by specifying the average height as from 50 nm to 4 μ m and an average separation of from 50 nm to 4 μ m. Claim 7 further limits claim 1 by specifying the material of the microparticle as being one from a Markush group which has as members which include fumed silica pulverulent polymers. Markush groups are "artificial" assemblages of materials which are suited for the patent applicants' purposes.

The claims as amended are not directed to a self cleaning liquid storage device prepared by injection molding. The present claims are directed to textiles, cleaning articles having a hydrophilic surface imparted by the presence of hydrophilic pyrogenic silica. The hydrophilic surface results in water retention.

There is no guidance which would lead one to the selection of pyrogenic silica over pulverulent polymers or the other members of the Markush group. There is no indication that optimizing a surface for self cleaning properties or the ability to resist residue formation would be the same as optimizing a hydrophilic surface for water retention.

It is submitted that the claims as amended are patentably distinct from the invention represented by claims 1, 3 and 7 of the '236 application. There is no extension of a monopoly.

Withdrawal of the rejection is respectfully requested. A prima facie case has not been established.

Request for Interview

A telephonic or an in-person interview is respectfully requested should there be any remaining issues.

CONCLUSION

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Therefore, it is respectfully requested that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

It is not believed that extensions of time are required, beyond those that may otherwise be provided for in accompanying documents. However, in the event that additional extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. 1.136(a), and any fees required therefor are hereby authorized to be charged to **Deposit Account No. 02-4300, Attorney Docket No. 032301.602.**

Respectfully submitted,
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